**REMARKS**

The Office Action dated December 27, 2006, has been received and carefully considered. In this response, claim 11 has been amended. Entry of the amendment to claim 11 is respectfully requested. Reconsideration of the outstanding rejection in the present application is also respectfully requested based on the following remarks.

I. THE OBVIOUSNESS REJECTION OF CLAIMS 1-20

On pages 4-7 of the Office Action, claims 1-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Strasser (U.S. Patent No. 6,990,603) in view of Taylor et al. (U.S. Patent No. 6,263,398). This rejection is hereby respectfully traversed.

Under 35 U.S.C. § 103, the Patent Office bears the burden of establishing a prima facie case of obviousness. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The Patent Office can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of references. Id.. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some

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teaching or suggestion supporting the combination. <u>ACS Hospital Systems, Inc. v. Montefiore Hospital</u>, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). That is, under 35 U.S.C. § 103, teachings of references can be combined only if there is some suggestion or motivation to do so. <u>Id.</u>. However, the motivation cannot come from the applicant's invention itself. <u>In re Oetiker</u>, 977 F.2d 1443, 1447, 24 USPQ2d 1443, 1446 (Fed. Cir. 1992). Rather, there must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the art would make the combination. <u>Id.</u>.

Regarding claim 1, the Examiner asserts that Strasser teaches a non-volatile electronic memory configuration comprising: a volatile memory; a non-volatile memory coupled to the volatile memory; a controller coupled to the volatile memory and the non-volatile memory that <u>monitors data storage changes</u> made within the volatile memory and <u>controls the transfer of stored data</u> from the volatile memory to the non-volatile memory, <u>and vice-versa</u>, <u>based upon the monitored data storage changes</u> when power is above a particular minimum operating voltage level; and a power level detector that detects when power is above the particular minimum operating voltage level. The Examiner acknowledges that Strasser fails to teach a controller coupled to a volatile memory and a non-volatile memory that

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monitors data storage changes made within the volatile memory. However, the Examiner asserts that Taylor et al. teaches a memory system employing a non-volatile memory coupled to a cache for performing a write-through technique, and thus it would have been obvious to combine the teachings of Strasser and Taylor et al. to arrive at the claimed invention.

Applicants respectfully disagree. Specifically, Applicants respectfully submit that Strasser and Taylor et al., either alone or in combination, fail to teach, or even suggest, a controller coupled to a volatile memory and a non-volatile memory that <u>monitors data storage changes</u> made within the volatile memory and <u>controls the transfer of stored data</u> from the volatile memory to the non-volatile memory, <u>and vice-versa</u>, <u>based upon the monitored data storage changes</u>, as claimed. The Examiner refers to column 8, lines 16-18, and column 8, line 59, to column 9, line 16, of Taylor et al. for teaching this claim limitation. However, Taylor et al. merely teaches that data is written <u>simultaneously</u> to a cache and a non-volatile memory. Such a teaching does not even imply that data storage changes made within the volatile memory are <u>monitored</u> for later use in transferring data stored in the volatile memory to the non-volatile memory <u>based upon those monitored data storage changes</u>. Indeed, such a teaching even teaches away from the claimed

invention by eliminating any need for <u>monitoring</u> data storage changes previously <u>made</u> (note the use of the past tense term "<u>made</u>" and not the present tense term "<u>making</u>") within the volatile memory since Taylor et al. merely teaches that data is written <u>simultaneously</u> to a cache and a non-volatile memory. At this point, Applicants would like to remind the Examiner that, as stated in MPEP § 2143.03, to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. <u>In re Royka</u>, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). That is, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." <u>In re Wilson</u>, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970). Since the cited references clearly do not teach, or even suggest, all of the claimed limitations, a *prima facie* obviousness of a claimed invention has not been established.

Also, addressing the Examiner's response to Applicant's prior arguments, it should be noted that Applicants have never relied upon the fact that, while true and as acknowledged by the Examiner, Taylor fails to teach transferring <u>stored</u> data. Rather, Applicants have merely pointed out, as discussed above, that Taylor et al. merely teaches that data is written <u>simultaneously</u> to a cache and a non-volatile memory, which does

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not even imply that data storage changes made within the volatile memory are <u>monitored</u> for later use in transferring data <u>stored</u> in the volatile memory to the non-volatile memory, <u>and vice versa</u>, <u>based upon those monitored data storage changes</u>. Indeed, such a teaching even teaches away from the claimed invention by eliminating any need for <u>monitoring</u> data storage changes previously <u>made</u> (note the use of the past tense term "<u>made</u>" and not the present tense term "<u>making</u>") within the volatile memory since Taylor et al. merely teaches that data is written <u>simultaneously</u> to a cache and a non-volatile memory. To further emphasize this point, Applicants point out that the Examiner has mischaracterized Taylor et al. by asserting that Taylor et al. teaches "updating" the contents of non-volatile memory to "reflect" what has been written to a volatile memory. This characterization is totally incorrect since, as described above and as explicitly recited in Taylor et al., Taylor et al. merely teaches that data is written <u>simultaneously</u> to a cache and a non-volatile memory. Taylor et al. fails to disclose, or even suggest, <u>monitoring</u> data storage changes previously <u>made</u> (note the use of the past tense term "<u>made</u>" and not the present tense term "<u>making</u>") within the volatile memory.

Further, it should also be noted that Strasser and Taylor et al., either alone or in combination, fail to disclose or even

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suggest controlling the transfer of stored data from the volatile memory to the non-volatile memory, <u>and vice-versa</u>, <u>based upon the monitored data storage changes</u>, as claimed. That is, neither Strasser or Taylor et al., either alone or in combination, disclose or even suggest controlling the transfer of stored data <u>both</u> from the volatile memory to the non-volatile memory <u>and</u> from the non-volatile memory to the volatile memory, <u>based upon the monitored data storage changes</u>.

Additionally, the Examiner asserts that any motivation to combine Strasser and Taylor et al. cannot be construed as hindsight reasoning since Applicants specification does not discuss any desire to prolong the useful lifetime of flash memories. However, it is Strasser and Taylor et al. that do not discuss any such desire, and thus there would not have been any motivation to combine Strasser and Taylor et al. based upon that fact alone. In fact, Strasser instead emphasizes prolonging the life of a power supply, not prolonging the life of a memory (e.g., see from column 6, line 46, to column 7, line 37). These competing interests are not complementary, but rather are opposing, and thus there would not have been any motivation to combine Strasser and Taylor et al. based upon this fact as well. Also, since Taylor et al. merely teaches writing data <u>simultaneously</u> to a cache and a non-volatile memory, whereas

Strasser teaches transferring data previously stored in a volatile memory to either a back-up volatile memory or a non-volatile memory (none of which being a cache memory), there would be no motivation to combine Strasser and Taylor et al. since these interests are opposing as well.

Additionally still, the Examiner has failed to address in any manner, in any Office Action, claims 6 and 7. While the reason for this is obvious (i.e., because the limitations recited in claims 6 and 7 are not even remotely disclosed, or suggested, by the cited references), it is still incumbent upon the Examiner to present at least a prima facie case of obviousness. Thus, at a minimum, if the Examiner can even make such a case, it must be made in a subsequent non-final Office Action.

In view of the foregoing, it is respectfully submitted that Strasser and Taylor et al., either alone or in combination, fail to disclose, or even suggest, the claimed invention. Accordingly, it is respectfully submitted that claim 1 should be allowable.

Regarding claims 2-13, these claims are dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claims 2-13 should also be allowable at least by virtue of their dependency on independent

claim 1.  Moreover, these claims recite additional features which are not disclosed, or even suggested, by the cited references taken either alone or in combination.  For example, claims 6 and 7 recite that the volatile memory is a dual port, dynamic random access memory coupled to both the non-volatile memory and the controller in a particular configuration.  However, nowhere do Strasser and Taylor et al. disclose, or even suggest, such a feature.  Indeed, the Examiner even fails to mention how Strasser and Taylor et al. disclose, or even suggest, such a feature.

Regarding claims 14-20, these claims recite subject matter related to claims 1-13.  Thus, the arguments set forth above with respect to claims 1-13 are equally applicable to claims 14-20.  Accordingly, is it respectfully submitted that claims 14-20 are allowable over Strasser and Taylor et al. for the same reasons as set forth above with respect to claims 1-13.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 1-20 be withdrawn.


II. <u>CONCLUSION</u>

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an

early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number, in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.
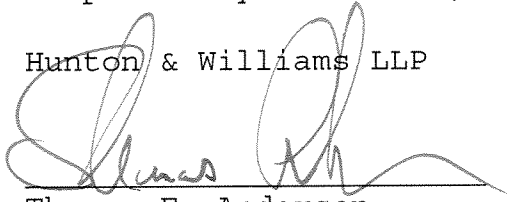
To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

Respectfully submitted,

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